

Amendments to the Claims

1. (CURRENTLY AMENDED) A circuit arrangement for obtaining an output signal (V_a) from a signal (V_s) containing at least one alternating component, said circuit arrangement comprising a signal source (1) that supplies this signal (V_s), a first peak value detection device (2) for determining a maximum value (V_{max}) of the signal (V_s), a second peak value detection device (3) for determining a minimum value (V_{min}) of the signal (V_s), a first signal linking device (4, 5, 6, 71) for obtaining a first resulting signal (V_1) by additive linking of the signal (V_s), the maximum value (V_{max}) and the minimum value (V_{min}) in accordance with the rule

$$V_1 = K_1 * \{V_s - (V_{max} + V_{min})/2\},$$

in which K_1 is a freely selectable first constant factor,
a second signal linking device (7, 72) for obtaining a second resulting signal (V_2) by additive linking of the maximum value (V_{max}) and minimum value (V_{min}) in accordance with the rule

$$V_2 = (V_{max} - V_{min}) * K_2,$$

in which K_2 is a freely selectable second constant factor,
a first squaring device (8) for squaring the first resulting signal (V_1), a second squaring device (9) for squaring the second resulting signal (V_2) and a third signal linking device (100, 11, 101) for obtaining the output signal (V_a) by additive linking of the squared first resulting signal ($(V_1)^2$) and the squared second resulting signal ($(V_2)^2$) in accordance with the rule

$$V_a = K_3 * \{(1/8) * (K_1/K_2)^2 * (V_2)^2 - (V_1)^2\},$$

in which K_3 is a freely selectable third constant factor.

2. (CURRENTLY AMENDED) A circuit arrangement as claimed in claim 1, characterized in that the signal source (1) is formed by a sensor device.

3. (CURRENTLY AMENDED) A circuit arrangement as claimed in claim 2, characterized in that the sensor device (1) is designed as a magnetoresistive sensor device.

4. (CURRENTLY AMENDED) A rotational speed measurement device,
characterized by a circuit arrangement as claimed in ~~claim 1, 2 or 3~~ claim 1.

5. (CURRENTLY AMENDED) A method of obtaining an output signal (V_a)
from a signal (V_s) containing at least one alternating component, said method
comprising the following method steps:

- determining a maximum value (V_{max}) of the signal (V_s),
- determining a minimum value (V_{min}) of the signal (V_s),
- obtaining a first resulting signal (V_1) by additive linking of the signal
(V_s), the maximum value (V_{max}) and the minimum value (V_{min}) in accordance with
the rule

$$V_1 = K_1 * \{V_s - (V_{max} + V_{min})/2\},$$

in which K_1 is a freely selectable first constant factor,

- obtaining a second resulting signal (V_2) by additive linking of the
maximum value (V_{max}) and minimum value (V_{min}) in accordance with the rule

$$V_2 = (V_{max} - V_{min}) * K_2,$$

in which K_2 is a freely selectable second constant factor,

- squaring the first resulting signal (V_1),
- squaring the second resulting signal (V_2) and
- obtaining the output signal (V_a) by additive linking of the squared
first resulting signal ($(V_1)^2$) and the squared second resulting signal ($(V_2)^2$) in
accordance with the rule

$$V_a = K_3 * \{(1/8) * (K_1/K_2)^2 * (V_2)^2 - (V_1)^2\},$$

in which K_3 is a freely selectable third constant factor.